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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,814	02/17/2004	Randal L. Schmitt	SD7337/S100403	1493
20567	7590	11/25/2005	EXAMINER	
SANDIA CORPORATION P O BOX 5800 MS-0161 ALBUQUERQUE, NM 87185-0161			RATCLIFFE, LUKE D	
			ART UNIT	PAPER NUMBER
			3662	

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/780,814	<b>Applicant(s)</b> SCHMITT ET AL.	
	<b>Examiner</b> Luke D. Ratcliffe	<b>Art Unit</b> 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 11-13, 15-17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) 7-10, 14, 18 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 15 is objected to because of the following informalities: In part d of the claim the claim states "adjusting a pointing direction of said output laser beam originating from said laser transmitter system when said image of second portion of said output laser beam; and". It is unclear from the wording of the claim when the applicant wants to adjust a pointing direction of the output laser beam. The examiner will however examine the claim with respect to the first claim where the applicant states in part e that "adjusting at least one optical element of said laser transmitter system when said image of said second portion of said output laser beam does not impinge upon a desired region of a plurality of pixels of said means for capturing an image." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **1-4, 13, 15, 16, 17, and 20** rejected under 35 U.S.C. 102(b) as being anticipated by Lipscomb (5872626).

Referring to **claims 1 and 15**, Lipscomb shows a method for aligning a laser transmitter system and a receiver optical system comprising a attenuator and reflector

assembly (figure 4 Ref 380), reflecting a first portion of an output laser from a laser transmitter system onto said attenuator and reflector assembly (figure 4), attenuating the first portion of the output laser beam (figure 4 Ref 450), reflecting the first portion of the output laser beam to change direction so as to direct the first portion of the laser output beam into the receiver optical system (figure 4 Ref 475 and 465), inputting the first portion of the output laser beam into the receiver optical system (figure 4 Ref 475 and 465), directing a second portion onto an means for capturing an image to generate an image of the second portion (figure 4 Ref 460), determining a positing and an intensity profile of the second image (column 7 lines 42-67), and adjusting at least one optical element (column 7 lines 42-67).

Referring to claims **2 and 16**, Lipscomb shows repeating this process until said image of said second portion of the output laser beam impinges upon said desired region of the pixels (column 7 lines 42-67).

Referring to **claims 3 and 17**, Lipscomb shows at least one optical element changes a pointing direction of said output laser beam (column 7 lines 42-67).

Referring to claims 4, Lipscomb shows a pointing direction that is repeatedly determined to track a change, it is inherent that the change occurs over the passage of time (column 7 and 8).

Referring to **claims 13 and 20**, Lipscomb shows a reflection direction of a first portion of the output laser beam that is antiparallel to an original direction of the output laser beam (figure 4).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **5, and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipscomb (5872626) in view of Edwards (4889425).

Referring to claims **5 and 6**, Lipscomb shows a pointing direction that is repeatedly determined to track a change, it is inherent that the change occurs over the passage of time (column 7 and 8). Lipscomb does not show a pointing direction that is repeatedly determine to track a change as a result in the change in an environment.

Edwards shows a pointing direction that is repeatedly determined to track a change as a result to temperature (column 1 lines 48-68). It would have been obvious to further modify Lipscomb to include the tracking of temperature because the changing of the temperature of the optics due to the change in ambient temperature is a common reason that optics may change over time.

Claims **11,12, and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipscomb (5872626) in view of Duquette (2002/0126296).

Lipscomb shows the measuring of an energy profile of the output laser beam but does not show using the intensity profile to measure the energy profile of the output laser beam.

Referring to **claim 11**, Duquette shows an intensity profile that is employed to measure a far-field energy profile of the output laser beam (paragraph 48). It would

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have been obvious to further modify Lipscomb to include the intensity profile that is employed to measuring a far-field energy profile because this is a common means to measure the energy profile of a laser beam and has no new or unexpected results.

Referring to claims **12 and 19**, Lipscomb shows the use of a camera as an image capturing device for the second portion of the laser beam but does not specify what camera is used.

Duquette shows the use of a CCD array to capture the image of a laser beam (paragraph 22). It would have been obvious to modify Lipscomb with Duquette to include the CCD array because this is a common image capturing device and would have no new or unexpected results if used by Lipscomb.

***Allowable Subject Matter***

Claims 7-10, 14, 18, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke D. Ratcliffe whose telephone number is 571-272-3110. The examiner can normally be reached on 8:00-4:30 M-F.

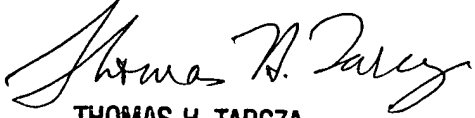
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LDR

LDR

  
THOMAS H. TARCZA  
SUPERVISORY PATENT EXAMINER  
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